



Benjamin STOCKTON

Statistics Doctoral Student | Research Assistant

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WORK & RESEARCH EXPERIENCE

Present June 2021	Research Assistant on Supplemental Grant for NSF Grant # 2015320, UNIVERSITY OF CONNECTICUT, USA <ul style="list-style-type: none">> Original NSF grant is for developing a model to classify bovid teeth fragments from hominid archeological site by species.> Supplement to support my studies and research on developing missing data methods in the context of directional data including multiple imputation strategies for directional data in regression, time series, and spatio-temporal contexts. <div>     </div>
August 2020 June 2020	Data Science Leadership Development Program Intern, TRAVELERS INSURANCE Co., USA <ul style="list-style-type: none">> Participated in the 2020 Data Science Leadership and Development Program at the Travelers Insurance Co..> For the internship, I worked on a classification problem using XGBoost models and Natural Language Processing using python and various python packages such as pandas, numpy, scikit-learn, xgboost, and huggingface. <div>     </div>
July 2019 June 2019	Colorado Summer Institute in Biostatistics (CoSIBS) Participant, COLORADO SCHOOL OF PUBLIC HEALTH & NIH, USA <ul style="list-style-type: none">> Participated in the 2019 SIBS program at the Colorado School of Public Health.> I took an introductory course in applied biostatistics and methods of biostatistics.> The program concluded with a project for which we analyzed a paper on a clinical trial on the effectiveness of a new anti-malaria treatment. <div> </div>
May 2019 January 2018	Undergraduate Research Assistant - Dept. of Mathematics, UNIVERSITY OF WISCONSIN-WHITEWATER, USA <ul style="list-style-type: none">> Used College Algebra enrollment and course data to analyze how to more effectively place students in either standard or Moving Up sections using multiple measures. <div></div>
July 2018 May 2018	Valparaiso University Mathematics REU Participant, VALPARAISO UNIVERSITY & NSF, USA <ul style="list-style-type: none">> Member of a three person that completed a research project on the optimal credit-worthiness threshold of a bivariate distribution. <div>   </div>
May 2019 June 2017	Undergraduate Research, UNIVERSITY OF WISCONSIN-WHITEWATER, USA <ul style="list-style-type: none">> Interdisciplinary research project focused on developing a web application to analyze the progression of STEM majors to graduation at UW-Whitewater. <div>    </div>

MENTORING

Present September 2022	Undergraduate Research Mentor, UNIVERSITY OF CONNECTICUT DEPARTMENT OF STATISTICS, USA <ul style="list-style-type: none">> Mentoring Sana Gupta, an undergraduate in statistics, on a project analyzing survey responses on motivations for exercising conducted by Katherine Gnall, a doctoral student in psychology. The project will be the basis for Sana's honors thesis. <div></div>
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May 2021 August 2019	Teaching Assistant, UNIVERSITY OF CONNECTICUT DEPARTMENT OF STATISTICS, USA <ul style="list-style-type: none"> > Fall 2019 and Spring 2020 - Teaching Assistant for STAT 1000Q : Introduction to Stats I with Instructor Robert Apruzese > Fall 2020 and Spring 2021 - Teaching Assistant for STAT 1100Q : Elementary Concepts of Statistics with Instructor Kathleen McLaughlin <div>Minitab Blackboard Connect</div>
May 2019 September 2018	Learning Assistant, UNIVERSITY OF WISCONSIN-WHITEWATER DEPARTMENT OF MATHEMATICS, USA <ul style="list-style-type: none"> > Fall 2018 - Learning Assistant for Intro to Applied Statistics for Dr. Khyam Paneru <ul style="list-style-type: none"> > Primarily assisted students with learning to use R and applying R to statistical analysis for a final project. > Spring 2019 - Learning Assistant for Introduction to Real Analysis for Dr. Wesley Hough <div>R</div>
May 2018 September 2016	Tutor at the Math Learning Center, UNIVERSITY OF WISCONSIN-WHITEWATER DEPARTMENT OF MATHEMATICS, USA <ul style="list-style-type: none"> > General tutor for courses including Pre-Algebra, Quantitative Reasoning, College Algebra, Finite Mathematics, Pre-Calculus, Calculus I, Calculus II, Calculus III, and Intro to Statistics <div>R</div>

PROJECTS

INCOMPLETE DATA ANALYSIS OF SENTENCING DECISION DATA	2022
github.com/benjamin-stockton/missing-data-criminology Collaboration between my advisor, Ofer Harel, C. Clare Strange, assistant professor of criminology and justice studies at Drexel University, and myself; we illustrated the detrimental effects of using complete case analysis compared to multiple imputation via simulation study on the impacts of racial identity in sentencing decisions.	
<div>R MICE Simulation Study</div>	
STAT 6315 INFERENCE I FINAL PROJECT	2021
github.com/benjamin-stockton/STAT_6315_Final_Project I conducted a literature review of cylindrical probability distributions, characterized by the joint distribution of a circular and angular component and a (nonnegative) linear component. I used a mixture model of Abe-Ley densities to model the distribution of wind directions and carbon monoxide at a weather station in Milwaukee, WI from 2017. Inference was performed in a Bayesian framework with the MCMC sampler implemented in RC++.	
<div>R RC++ AirData API from EPA</div>	

PUBLICATIONS

2023	(Submitted to the Journal of the American Statistical Association) "Imputation of Angular Missing Data by Bayesian Projected Normal Regression" by Benjamin Stockton, Ofer Harel.
2023	(Submitted to the Journal of Quantitative Criminology) "Now you see it, now you don't : A simulation and illustration of the importance of treating incomplete data in estimating race effects in criminology" by Benjamin Stockton, C. Clare Strange, Ofer Harel.

CONFERENCES (PRESENTATIONS)

2023	ENAR Invited Session - "Incomplete data in non traditional settings : Angles, Functions, and Shapes"
2018	National Conference on Undergraduate Research - Oral presentation on research from the project for evaluating undergraduate STEM student academic success
2018	Indiana Mathematics REU Conference - Oral presentation on research on thresholds for credit-worthiness based on a bivariate distribution

WORKSHOPS (ATTENDED)

2023	ENAR Fostering Diversity Workshop
2022	Field of Dreams Conference - Math Alliance
2022	Joint Statistical Meetings Diversity Mentoring Program
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